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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,281	09/16/2003	Stanford R. Ovshinsky	FC-103.1	3219
24963	7590	09/15/2005	EXAMINER	
ENERGY CONVERSION DEVICES, INC. 2956 WATERVIEW DRIVE ROCHESTER HILLS, MI 48309			MARTIN, ANGELA J	
		ART UNIT		PAPER NUMBER
		1745		

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/663,281	OVSHINSKY ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Angela J. Martin	1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### **Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 16 September 2003.  
2a)  This action is **FINAL**.                            2b)  This action is non-final.  
3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5)  Claim(s) \_\_\_\_\_ is/are allowed.  
6)  Claim(s) 1-20 is/are rejected.  
7)  Claim(s) \_\_\_\_\_ is/are objected to.  
8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_ .

5)  Notice of Informal Patent Application (PTO-152)

6)  Other: \_\_\_\_\_

## DETAILED ACTION

### ***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-14 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 6, 8-15, 18 of copending Application No. 10/678,719. Although the conflicting claims are not identical, they are not patentably distinct from each other because both claim cathode active material having oxygen storage capacity comprising a redox couple.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

3. Claims 1-14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-9, 11-16 of U.S. Patent No. 6,703,156. Although the conflicting claims are not identical, they are not patentably distinct from each other because both claim cathode active material having oxygen storage capacity comprising a redox couple.

4. Claims 1-14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 of U.S. Patent No.

6,777,125. Although the conflicting claims are not identical, they are not patentably distinct from each other because both claim cathode active material having oxygen storage capacity comprising a redox couple.

5. Claims 1-14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 of U.S. Patent No.

6,783,891. Although the conflicting claims are not identical, they are not patentably distinct from each other because both claim cathode active material having oxygen storage capacity comprising a redox couple.

6. Claims 1-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-11, 13-23, 25-28, 31-33 of U.S. Patent No. 6,620,539. Although the conflicting claims are not identical, they are not patentably distinct from each other because both claim cathode active material having oxygen storage capacity comprising a redox couple.

#### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 8 rejected under 35 U.S.C. 102(b) as being anticipated by Kaneko et al., U.S. Pat. No. 4,362,791.

Kaneko et al., teach in an electrochemical cell, a cathode comprising a cathode active material including a valency change material (abstract). It teaches the valency change redox material comprises a metal oxide/oxide redox couple of manganese (abstract).

Thus, the claims are anticipated.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-8, 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko et al., U.S. Pat. No. 4,362,791, in view of Sklarchuk, U.S. Pat. No. 3,791,896.

Kaneko et al., teach an electrochemical cell as described above.

Sklarchuk teaches a hydrophobic component (abstract; claims 1 and 4). It teaches PTFE is a separate layer within the cathode (claims 1 and 4). It teaches a current collector extending within active material (col. 1, lines 56-58). It teaches the collector is a grid (col. 1, lines 56-58). It teaches further including a catalytic carbon (claim 1).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the teachings of Sklarchuk into the teachings of Kaneko et al., because Sklarchuk teaches the method of making its electrode "lends itself to automation and low manufacturing cost."

11. Claims 9 and 10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kaneko et al., U.S. Pat. No. 4,362,791.

Kaneko et al., teach an electrochemical cell as described above.

Thus, the claims are anticipated.

However, if the claims are not anticipated, they are obvious because although the prior art of record does not state "instant startup capability" and "ability to accept recaptured energy by running in reverse as an electrolyzer," since the materials of the fuel cell are the same, the fuel cell would inherently have instant startup capability and could recapture energy by running as an electrolyzer.

12. Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko et al., U.S. Pat. No. 4,362,791, in view of Ovshinsky et al., U.S. Pat. No. 6,447,942 B1.

Kaneko et al., teach an electrochemical cell as described above.

Ovshinsky et al., teach a fuel cell including a hydrogen electrode (anode) having hydrogen storage capacity (col. 7, lines 15-22). It teaches the hydrogen storage capacity provides the fuel cell with instant startup capability (col. 7, lines 9-12). It teaches the hydrogen storage capacity provides fuel cell with ability to accept

recaptured energy by running in reverse as an electrolyzer (col. 7, lines 9-12). It teaches the hydrogen storage capacity provides thermal energy to the fuel cell via the heat of formation of the hydride (col. 11, lines 37-45). It teaches the anode active material is a hydrogen storage alloy, which does not include noble metal catalysts (col. 7, lines 22-24). It teaches the hydrogen storage alloy is rare earth/misch metal alloys, zirconium alloys, titanium alloys, and mixtures (col. 7, lines 32-34).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the teachings of Ovshinsky et al., into the teachings of Kaneko et al., because Kaneko et al., teaches a redox system for a cathode and anode, and Ovshinsky et al., teaches a hydrogen storage material for an anode, which gives a fuel cell the advantage of being able "to start up instantly and can accept recaptured energy such as that of regenerative braking by operating in reverse as an electrolyzer."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela J. Martin whose telephone number is 571-272-1288. The examiner can normally be reached on Monday-Friday from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



AJM



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